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Operating &
Maintenance logs

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

MM
FCC 83-338
33530

In the Matter of)

Operating and maintenance logs)
for broadcast and broadcast)
auxiliary stations.)

BC Docket No. 82-537

REPORT AND ORDER

(Proceeding Terminated)

Adopted: July 14, 1983

Released: August 12, 1983

By the Commission:

Introduction

1. On August 4, 1982, the Commission adopted a Notice of Proposed Rule Making (Notice) in the above-entitled matter. (47 Fed. Reg. 36453, August 20, 1982.) This proceeding was initiated by the Commission on its own motion to examine the usefulness of the rules that require broadcast licensees to make periodic equipment observations and to record the results in operating and maintenance logs.

2. Briefly, the Commission questioned the necessity of mandatory inspection and logging procedures, given a licensee's basic obligation to ensure proper technical station operation. We noted that use of state-of-the-art equipment produces fewer situations requiring remedial action by the broadcaster and pointed out that current requirements for periodic inspection and logging may be inadequate for some stations and excessive for others. Consistent with our philosophy of letting the competitive marketplace substitute for federal regulation wherever possible, we suggested that a broadcaster's best self-interest is served by taking whatever steps are necessary to ensure that station operation is consistent with the Commission's technical rules and the terms on the station license. In view of these considerations, we proposed to extend our deregulatory initiatives to the required periodic measurement and operating and maintenance logging areas.

3. Accordingly, we recommended reduction or elimination of the logging requirements governing full service stations (§§73.1820 and 73.1830), together with the mandated schedule of meter and monitor readings, inspections and other measurements. In lieu of these requirements, we proposed to require technical record keeping only on a case-by-case basis when necessary to resolve an interference situation or correct a severely deficient operation. Similar proposals were made for most types of broadcast auxiliary stations licensed under Part 74 of the Commission's Rules.

4. However, we did ask whether several exceptions to this general deregulation should be made. For example, we suggested retaining the logging requirements pertaining to experimental and developmental broadcast stations

(those authorized pursuant to Part 74, Subparts A, B and C). We also noted that the current logging requirements distinguish between directional AM stations having approved antenna monitor sampling systems and those that do not. Deleting the requirement for periodic measurement could remove the incentive for licensees of older AM stations to upgrade their sampling systems-- something clearly encouraged by the current rules. We also questioned the effect such action would have on AM directional interstation interference. Also raised was the impact of the proposed deregulation on proper tower light operation required for aeronautical safety and tests of the Emergency Broadcast System (EBS).

5. In conclusion, we emphasized that in proposing the elimination of periodic inspection, measurement and logging requirements, we did not intend to relieve licensees of their responsibility to effectively monitor station technical performance and to strictly comply with the terms of their station's authorization. We indicated that if an inspection by the Commission revealed a violation of the rules, the licensee would be asked to indicate what procedures had been employed to ensure proper operation. If these procedures were considered inadequate, a forfeiture could be issued for willful violation of the rules involved.

Comments

6. Twenty-four comments and five reply comments were filed in response to the Notice. Generally, those favoring the deregulation reiterated the arguments advanced by the Commission in the Notice or affirmed its suppositions. Thus, the comments widely asserted that marketplace forces, rather than government rules, would effect the appropriate regulation. They also asserted that because a station's success depended upon its audience level, it would clearly be in the broadcaster's best interest to ensure proper facility performance in order to maintain a quality signal. Accordingly, they stated that it would be appropriate for the Commission to delete the periodic inspection, observation and logging requirements where marketplace forces can provide more effective and flexible regulation. Many also expressed the belief that each licensee should be free to develop procedures for monitoring station facilities. The commenters affirmed that in the past, broadcasters have demonstrated the ability to do on their own what the Commission had previously required them to do by rule, and that there was no reason to assume that they would do less in the technical area.

7. Comments and reply comments filed in opposition to the Commission's proposal also exhibited many similarities. Concern was expressed that abandonment of periodic inspection and logging requirements would result in increased interference and deterioration in the quality of radio and television service. Further, concern was expressed that some broadcasters might interpret log elimination as a "de facto" relaxation of the FCC's technical standards and that our confidence that licensees would take "reasonable measures to ensure proper operation" could become subject to personal interpretation. There was a consensus among the opponents that while the Commission was to be applauded for attempting to reduce unneeded paperwork, wholesale elimination of the current logging requirements would be going too far. Logging was viewed as an important tool in the prevention of interference, both as an enforcement aid to the Commission and as a detailed check list of important station operating parameters. Several parties

expressed the belief that if the Commission eliminated the current periodic measurement and logging requirements, few broadcasters would be concerned about out-of-tolerance operation because the burden of proof would be placed on either the FCC or the adversely affected licensee(s). The argument also was made that because the FCC lacks the enforcement personnel necessary to check stations on a regular basis, the chances of it discovering a rule infraction were small.

8. Other comments suggested that where records and reports promoted efficiency in use of public spectrum for the public benefit, they should be retained, and that periodic measurement and logging for FCC inspection constituted no additional burden on conscientious radio operators. The suggestion was made that because the smaller stations with limited engineering capability would benefit economically the most from the Commission's proposals, relief for them would potentially be at the expense of the best use of the spectrum because they already have the least capacity to detect their own errors and infringements.

9. The Commission's reliance on the marketplace to ensure technical compliance also drew criticism. Several commenters argued that the marketplace would have an effect opposite that intended by the Commission, at least with respect to those operating parameters relevant to the protection of other licensees' signals. The belief was expressed that the marketplace would pressure a licensee to exceed the proper values and increase the signal for local market benefit without regard to the damage done to the signals of other radio stations. The audience of the adversely affected station(s) would be poorly equipped to determine the cause of a seemingly inexplicable reception problem and would have to rely on the broadcaster to determine the cause. The latter might have to spend considerable effort evaluating the matter, only to have to seek relief from an "allegedly" reluctant and understaffed FCC. Additionally, in the case of AM stations in particular, commenters requested that "substantial adverse effect" (as proposed in the Notice) should not have to be proven before observation and logging requirements are placed on an offending station, because an accumulation of small effects by several stations could escape regulatory penalty even though their aggregate impact was considerable.

10. Opinion was again divided on the question of whether AM stations without approved sampling systems should benefit from the proposed deregulation. 1/ Prevention of interference was the principal reason cited by parties favoring retention of logs for AM stations, particularly those with critical arrays. 2/ Concern was expressed that many of the older antenna monitoring systems, which could not be approved under today's standards, cannot be relied upon to ensure the requisite degree of protection that should

1/ By "approved sampling system", we mean one meeting the installation and requirements of §73.68(c) of the rules and specifically approved by the Commission as meeting certain performance standards.

2/ A "critical array" is an AM station directional antenna system which, for the protection of other stations, has a license-specified phase tolerance more stringent than $\pm 3^\circ$.

be provided by the directional antenna system. Consequently, there was a feeling that licensees of stations using the older sampling systems should continue to be required to monitor their directional antenna systems more closely and more often, including frequent monitor point field intensity measurements. One highly critical commenter expressed the belief that absent the use of logs, some AM station licensees would not reduce power and change antenna pattern as required when shifting from day to night time operation. However, the more moderate and widely held view was that logging requirements for AM stations without approved sampling systems should be retained, otherwise the incentive to upgrade the sampling system would be removed. Once upgraded, such station licensees should be able to benefit from the relaxation of the rules. However, several commenters argued that AM stations should not be treated differently than others, and that operating economies would ensure continued upgrading of directional AM station sampling systems. These parties generally expressed the view that in the few cases where AM station licensees might act irresponsibly, the Commission's proposed case-by-case logging provisions would suffice to bring operation back into compliance. 3/

11. Similar division of opinion was evident on the questions of logging experimental station operation, tests of the Emergency Broadcast System and antenna tower light observation. One line of thought held that due to the experimental or public safety nature of the current logging and inspection requirements applicable to these areas of operation, they should be retained. The opposing view held that in the matter of experimental stations, a case-by-case approach should be taken. The inference was that the Commission should limit its interest to the experimental aspect of the operation and the licensee's findings and conclusions, rather than also request information about traditional or incidental details of comparatively little importance. More clearly expressed was the belief that licensee self-interest would ensure proper attention to the requirements applicable to Emergency Broadcast System operation and antenna tower lighting maintenance. On the latter point, comments from the Federal Aviation Administration favored elimination of logging routine antenna lighting inspection results, but did request continued periodic inspection, and retention of the limited logging requirements contained in §17.49 as proposed in the Appendix to the Notice.

Discussion

12. The Commission has confidence in the general integrity of its broadcast licensees. We recognize that rule violations occur, but we believe most are inadvertent or accidental. Some are due to negligence arising from adverse economic situations, but our experience has indicated that few can be

3/ There was one commenter skeptical of this view who argued that such record-keeping would not resolve interference problems, but that proper operation and maintenance of transmitters, for which there are adequate incentives unrelated to logs, would. These incentives, however, were not enumerated. This party further argued that reimposing logging requirements on a case-by-case basis would be likely to restore burdens without corresponding benefits.

attributed to a licensee's complete indifference to (or contempt of) our regulations, or a willful desire to improve a station's competitive position through technical means which could cause interference to other licensees. We do not believe that a deregulatory action intended to benefit many should be subverted by the potential for misuse by a few. For this reason, and for the reasons discussed in the Notice (which are summarized briefly in Paragraph 2, supra), we have decided to amend the rules essentially as proposed.

13. Thus, with several exceptions discussed below, broadcast licensees will no longer be required to follow a schedule of meter and monitor readings, inspections, observations and certain other measurements as previously required; nor will they be required to enter the results of these activities in a station log. Rather, licensees will be free to develop their own schedules based on the performance characteristics of their transmitting equipment.

14. First, as proposed in the Notice, we are eliminating the rules in Parts 17, 73 and 74 which relate to recording of routine information pertaining to observation of antenna tower lighting operation. However, as was also proposed, we are retaining the observation and inspection requirements in §17.47 of the Commission's Rules and modifying §17.49 to require log entries only in the event of tower light extinguishment or malfunction. This approach is in the interest of aeronautical safety and was endorsed by the Federal Aviation Administration in its comments.

15. Second, as proposed in the Notice, we are retaining the current logging requirements applicable to experimental broadcast stations authorized pursuant to Subparts A, B and C of Part 74. We have reviewed these logging requirements and find that they are appropriate for the experimental or developmental type of operation being authorized, and the information so requested is of considerable interest to the Commission in providing new and innovative services to the public. Nevertheless, we will delete certain routine logging requirements that essentially are unrelated to the experimental or developmental operation (e.g., the need to log the results of antenna tower lighting inspections). The precise changes are set forth in the Appendix.

16. Third, we believe there are strong reasons for not including AM broadcast stations without Commission-approved antenna sampling systems from certain benefits of the proposed deregulation. These stations must continue to periodically observe and log information pertaining to proper antenna system operation. In all other respects, they will benefit to the same extent as stations with approved sampling systems. Consistent with the general thrust of the comments, we have decided to retain these limited provisions to increase the incentive for those licensees who have not already done so to upgrade their sampling systems and to preserve regulations which we believe effectively ensure non-interference to the service areas of other licensees.

17. Fourth, we are adopting our proposal to require licensees, on a case-by-case basis, to maintain a log in situations involving interference or deficient operation. This option received considerable support in the comments and it represents an enforcement action which, for the latter situation, should be useful in discouraging potential carelessness. Moreover, in individual circumstances the use of appropriate operating and maintenance

procedures will contribute to the resolution of interference cases. The need to complete a log requires periodic observations or measurements that should identify any need for transmission system adjustment. This enables us to tailor any logging requirement to the individual circumstances of a particular interference situation in such a way that the resolution of the problem is facilitated. Also, we have concluded that the concern about a licensee having to demonstrate "substantial adverse effect" (see Paragraph 9, supra) is valid, because the impact of a number of individually small errors can be considerable. Further, use of the term "substantial" would place us in the position of having to develop some standard or other means of quantifying the adverse operation or interference. Thus, proposed Sections 73.1835 and 74.19 have been reworded to give the Commission greater flexibility in imposing periodic observation and logging requirements. Additionally, we note that in the Report and Order in PR Docket No. 82-726 (Elimination of logging requirements in the Amateur Radio Service), adopted May 26, 1983, §0.314(x) was created to grant additional delegated authority to the Commission's local Engineers-in-Charge to require licensees to keep station records in order to resolve interference problems, rule violations or instances of obviously deficient operation. Similar authority in the case of broadcast and broadcast auxiliary operation is herein conveyed. Nevertheless, we would emphasize that these rules will not be invoked or imposed in an arbitrary or capricious manner (as might be the case if interference was merely alleged), but only after a showing of adverse impact, deficient operation, or rule violation.

18. Fifth, we have decided to require all broadcast licensees to continue to keep a record of the results of tests of the Emergency Broadcast System (EBS). 4/ These rules will be revised to indicate that the required entries should be made in the "station log or records" rather than specifying an operating or maintenance log. Proper functioning of the EBS in a time of national emergency is a matter of the highest priority and experience demonstrates that certain mandatory logging procedures are necessary to achieve that end.

19. For example, EBS test logging previously has revealed many instances where the usual expected test transmissions have not been received. This has led licensees to contact the Commission's Emergency Communications Division out of concern that their failure to log a test could result in a citation. However, we have found that the concerned licensee's failure to receive (and therefore log) an EBS test is generally not due to a fault of the receiving station (specifically, its EBS receiver), but due to improper activating tones being transmitted by the primary EBS station. Further, regardless of how well intentioned a licensee may be, it is easy to overlook a "non-event", such as failure to receive an EBS test. Even if such a test is discussed verbally, but not logged, there could be confusion later as to whether or not it took place as expected. The temptation to assume that events generally occur as scheduled could be very detrimental to reliable EBS operation. Thus, EBS test logging provides a certain means of identifying failures in the system within a reasonable time frame.

4/ See §§73.931(d)(2), 73.961 and 73.962(e)(4) of the Commission's Rules.

20. We have no doubt that the majority of our broadcast licensees will continue to keep some kind of technical records, and that many would continue to log EBS tests voluntarily. Nevertheless, brief recording of EBS tests is so minimally burdensome and provides such an effective verification of proper EBS operation, we have decided that the current minimal EBS logging requirements should be retained. This requirement should represent little, if any burden, on the conscientious licensee.

21. Lastly, two new issues were raised in the comments which fall within the scope of this proceeding and require our attention. A suggestion was made that low power TV stations be excluded from the benefits to be afforded by this proceeding on the basis that they operate at less than standard mileage separations from full power TV stations. Also, several parties requested that the Commission eliminate the rules which require licensees to retain their logs for some period of time (usually two years) after completion.

22. We believe there is inadequate justification to exclude low power TV stations from the limited benefits which would accrue to them as a result of action taken in this proceeding. The logging requirements applicable to low power TV station operation are already minimal. The only change we contemplated was elimination of the requirements currently contained in §74.781(b) and (c) to log results of inspections of antenna tower lighting and control equipment. The showings and records of initial station operating parameters required by §74.750(g) and §74.751(d) are retained. These measurements are performed only once, at the time a low power TV station is placed in operation, and are used to verify that station performance conforms to FCC technical standards. Thus they do not constitute an ongoing regulatory burden.

23. Further, the argument that low power TV stations are located at less than "standard" mileage separations from regular TV stations appears to be without merit. The spacing is less because the power and service area of a low power TV station is considerably less than a regular TV station. Also, the protection afforded by the rules in cases of low power TV station operation is better than that afforded in the case of regular TV station operation. (Compare §74.707 with §73.610.) In view of these considerations, and because there is no reason to assume that low power TV station licensees will be less diligent than any other type of broadcast licensee with respect to the proper operation of their stations, the request to exclude them from the minimal benefits provided by this proceeding is denied.

24. On the matter of log retention, we will not amend the rules as suggested because, to the minimal extent that we are continuing to require licensees to maintain station records, we want them available for inspection for the usual two year period. EBS test results, for example, are usually contained in the operating log. In most cases, discarding the operating log would also entail discarding the EBS test results. A similar situation exists with respect to antenna tower lighting information and the maintenance log. The burden of log retention is minimal and warranted, we believe, by the foregoing considerations.

25. To assist licensees in determining whether their operating and maintenance policies are appropriate, the Commission will identify and publish

through public notices common rule violations and any undesirable trends detected in the course of inspection of randomly selected stations. It is likely that these notices will be duplicated in many trade publications. Occasionally, the Commission may target certain problem areas for enforcement actions intended to restore full licensee compliance with the applicable regulations. Licensees who cannot demonstrate that they have been taking reasonable measures to ensure proper station operation will be viewed as willfully violating the rules and will incur forfeitures.

26. In conclusion, we reiterate that while we are amending the rules essentially as proposed in the Notice, there is no change in the fundamental responsibility of licensees to operate their stations in accordance with the rules and to adopt whatever procedures are necessary to guarantee it. The action we are taking here is not intended to serve as a license for negligence, but to allow licensees to implement the most cost-effective operating and maintenance policies appropriate for their stations. Nevertheless, should this privilege be abused and instances of interstation interference increase, or if circumstances indicate that the public is being ill served by this deregulation, we will revisit this area to determine to what extent the former requirements should be reimposed. We expect that many licensees will continue to maintain their own technical record of station operation and maintenance procedures. We encourage this. At a minimum, however, licensees must maintain a station log containing the information required by the new rules, as discussed above.

27. Regulatory Flexibility Act Final Analysis

I. Need for Rules

The Commission believes that its rules mandating periodic equipment observation, inspection and measurement, and concomitant logging of these results, no longer serves a useful regulatory purpose. Accordingly, we conclude that the majority of them can be eliminated without any adverse impact.

II. Purpose of Rules

As indicated above, we believe that the majority of the rules under consideration in this proceeding serve little constructive regulatory purpose. This proceeding is deregulatory in nature and is intended to afford broadcast licensees maximum flexibility in determining the operating procedures and maintenance schedules appropriate for their stations. The action taken herein is expected to result in more cost effective station operation, thereby contributing at least indirectly to the public benefit.

III. Flexibility Issues Raised in the Comments

None.

IV. Significant Alternatives Not Adopted

The Commission is continuing to require licensees to maintain some record of tests of the Emergency Broadcast System in order to ensure its proper operation in times of national or local emergencies. We are also requiring

that data pertaining to antenna tower lighting extinguishment or malfunction be entered into the station log. In comparison to the former regulatory burdens, these requirements are minimal and cannot possibly be construed as a hardship on any licensee. Also, the Commission is continuing to require licensees of directional AM broadcast stations without approved sampling systems to periodically measure and log certain directional antenna operating parameters and field strength measurements. This is being done to encourage these licensees to upgrade the quality of their antenna sampling systems and to preclude interstation interference.

28. Accordingly, IT IS ORDERED, pursuant to the authority contained in §§4(i) and 303 of the Communications Act of 1934, as amended, that Parts 73 and 74 of the Commission's Rules ARE AMENDED, effective September 19, 1983, as set forth in the attached Appendix. IT IS FURTHER ORDERED that this proceeding IS TERMINATED.

29. Further information on this matter may be obtained by contacting James E. McNally, Jr., Mass Media Bureau, (202) 632-9660.

FEDERAL COMMUNICATIONS COMMISSION

William J. Tricarico
Secretary

Attachment: Appendix

A P P E N D I X

Parts 17, 73 and 74 of the Federal Communications Commission Rules and Regulations are amended as follows:

1. Section 17.49 is revised to read as follows:

§17.49 Recording of tower light inspections in the station record.

The licensee of any radio station which has an antenna structure requiring illumination must make the following entries in the station record in the event of any observed or otherwise known extinguishment or improper functioning of a tower light:

- (a) The nature of such extinguishment or improper functioning.
- (b) The date and time the extinguishment or improper operation was observed or otherwise noted.
- (c) The date, time and nature of adjustments, repairs or replacements made.

2. In Section 73.51, paragraph (d) is amended by removing the words: "however, a notation when the indirect method is used must be made in the operating log for each day of using the indirect method of power determination."; subparagraph (e)(2) is revised by removing the words: "for each day of operation"; and subparagraph (f)(1) is amended by removing the sentence: "The computations are to be based on the values of antenna current and final amplifier input voltage and current obtained from the station's operating logs for the last week of regular operation with direct method of power determination.".

§73.51 Determining operating power.

* * * * *

(d) The indirect method of determining antenna input power, as described in paragraphs (e) and (f) of this Section, may be used on a temporary basis only. Prior authority from the FCC is not required. The indirect method may be used in the following situations:

(1) * * *

* * * * *

(e) * * *

* * * * *

(2) The value of F applicable to each mode of operation must be entered in the station log with a notation as to its derivation. This factor

is to be established by one of the methods described in paragraph (f) of this Section. The product of the DC input current and voltage to the final RF power amplifier stage, or, alternatively, the antenna input power as determined by the formula above must be entered in the operating log under an appropriate heading for each log entry of final RF power amplifier input current and voltage.

* * * * *

(f) * * *

(1) If the station had previously been authorized and operating by determining the antenna input power by the direct method, the factor F is the ratio of the antenna input power (determined by the direct method) to the corresponding final radio frequency power amplifier input power.

(2) * * *

(i) The factor F as shown in the transmitter manufacturer's test report, if such a test report specifies a unique value of F for the power level and frequently used; or,

* * * * *

3. In Section 73.57 paragraph (d) is amended by removing the words: "but at least once each calendar week"; subparagraph (d)(1) is removed and marked "Reserved"; and the last sentence in paragraph (g) is amended by removing the words: "with indications entered in the operating log once each day for each mode of operation until the defective remote metering equipment is repaired".

§73.57 Remote reading antenna and common point meters.

* * * * *

(d) Calibration of remote reading ammeters must be made against their corresponding regular ammeters for each mode of operation as often as necessary to ensure their accuracy and:

(1) [Reserved.]

* * * * *

(g) If a malfunction affects the remote reading indications of the antenna or common point ammeter, the operating power may be determined by the indirect method using the procedures described in §73.51(e) for a period not to exceed 60 days. Alternatively, the operating power may be determined by the direct method on a continued basis by reading the regular antenna or common point ammeters.

4. In Section 73.58 subparagraph (e)(1) is removed and marked @Reserved@; and the first sentence of subparagraph (e)(2) is revised by removing the words: "required to be read and logged".

§73.58 Indicating instruments.

* * * *

(e) * * *

(1) [Reserved.]

(2) If the defective instrument is an antenna base current ammeter of a directional antenna system, the indications may be obtained from the antenna monitor pending the return to service of the regular meter, provided other parameters are maintained at their normal values.

* * * *

5. In Section 73.61, paragraph (a) is revised to read as follows:

§73.61 AM directional antenna field measurements.

(a) Each AM station using a directional antenna system must make field strength measurements at the monitoring point locations specified in the instrument of authorization. These measurements must be made as often as necessary to ensure proper directional antenna system operation. However, if a weekly measurement schedule is specified by the terms of the station authorization, measurements must be made at least once each calendar week at intervals not exceeding 10 days. Measurements of directional AM stations without FCC-approved antenna sampling systems must be entered into the station log pursuant to the provisions of §73.1820.

* * * *

6. In Section 73.67 subparagraph (a)(5) is amended by removing the words: "but in no event less than once a week,"; subparagraph (a)(5)(i) is removed and marked "Reserved"; and subparagraph (c)(3) is amended by removing the words: "or logged".

§73.67 Remote control operation.

(a) * * *

* * * *

(5) Calibration of required indicating instruments at each remote control point must be made against their corresponding instruments at the transmitter site for each mode of operation as often as necessary to ensure their accuracy, and:

(i) [Reserved.]

* * * *

(c) * * *

* * * * *

(3) The tone must be transmitted only at such time and during such intervals that the transmitted information is actually being observed.

* * * * *

7. In Section 73.68 paragraph (d) is revised to read as follows: "In the event the antenna monitor sampling system is temporarily out of service, the station may be operated pending completion of repairs for a period not exceeding 60 days without further authority of the FCC, if the base currents, their ratios, and the deviations of those ratios, in percent, from values specified in the station authorization must be determined for each radiation pattern used."; subparagraphs (d)(1), (2) and (3) are removed; and in subparagraph (e)(2), the first sentence is amended by removing the expression: "and recorded, in the maintenance log".

§73.68 Sampling systems for antenna monitors.

* * * * *

(d) In the event that the antenna monitor sampling system is temporarily out of service, the station may be operated pending completion of repairs for a period not exceeding 60 days without further authority from the FCC, if the base currents, their ratios, and the deviations of those ratios, in percent, from values specified in the station authorization must be determined for each radiation pattern used.

(e) * * *

(1) * * *

* * * * *

(2) Immediately prior to modification or replacement of components of the sampling system not on the towers, and after a verification that all monitoring point values, base current ratios and operating parameters are within the limits or tolerances specified in the instrument of authorization or the pertinent rules, the following indications must be read for each radiation pattern: Final plate current and plate voltage, common point current, base currents and their ratios, antenna monitor phase and current indications, and the field strength at each monitoring point. Subsequent to these modifications or changes the above procedure must be repeated.

* * * * *

8. In Section 73.69 paragraph (b) is revised to read as follows: "In the event an antenna monitor becomes defective, the station may be operated without the monitor pending its repair or replacement for a period not in excess of 60 days without further authority from the FCC, if the base currents, their ratios, and the derivations of those ratios, in percent, from the values

specified in the station authorization must be determined for each radiation pattern used."; subparagraphs (b)(1), (2) and (3) are removed; subparagraph (d)(2) is amended by removing the words: "and recorded in the maintenance log"; in subparagraph (d)(3), the first sentence is amended by removing the words: "and recorded"; and paragraph (e) is revised to read as follows: "The antenna monitor must be calibrated according to the manufacturer's instructions as often as necessary to ensure its proper operation.".

\$73.69 Antenna monitors.

* * * * *

(b) In the event an antenna monitor becomes defective, the station may be operated without the monitor pending its repair or replacement for a period not in excess of 60 days without further authority from the FCC, if the base currents, their ratios, and the derivations of those ratios, in percent, from the values specified in the station authorization must be determined for each radiation pattern used.

* * * * *

(d) * * *

* * * * *

(2) Immediately prior to the replacement of the antenna monitor, after a verification that all monitoring point values and base current ratios are within the limits or tolerances specified in the instrument of authorization or the pertinent rules, the following indications must be read for each radiation pattern: Final plate current and plate voltage, common point current, base currents, antenna monitor phase and current indications, and the field strength at each monitoring point.

(3) With the new monitor substituted for the old, all indications specified in paragraph (d)(2) of this Section, again must be read. If no change has occurred in the indication for any parameter other than the indications of the antenna monitor, the new antenna monitor indications must be deemed to be those reflecting correct array adjustments.

* * * * *

(e) The antenna monitor must be calibrated according to the manufacturer's instructions as often as necessary to ensure its proper operation.

9. Section 73.140 is amended by revising paragraph (c) to read as follows:

\$73.140 Use of automatic transmission systems (ATS).

* * * * *

(c) Upon receipt of notification from the FCC, the station can commence full ATS operation.

* * * * *

10. In Section 73.142, subparagraph (d)(5) is amended by removing the sentence: "An entry noting the date and time of the calibration checks and any necessary adjustments must be made in the station maintenance log".

§73.142 Automatic transmission system facilities.

* * * * *

(d) * * *

* * * * *

(5) The accuracy of the clock must be maintained within an accuracy of ± 1 minute at all times. The clock accuracy must be checked as often as necessary, but at least once each calendar month as part of the required transmitting inspections. The primary standard of time will be the signals of stations WWV or WWVH of the National Bureau of Standards.

* * * * *

11. In Section 73.144 paragraph (c) is revised by removing the words: "and a notation made in the station's maintenance log showing the nature or cause of the ATS malfunction and a certification entered in the log by the station's radiotelephone operator that all required ATS functions are fully restored".

§73.144 Fail safe transmitter control for automatic transmission systems.

* * * * *

(c) If termination of the station transmission was caused by any failure of the ATS control or alarm functions, ATS operation of the station must not be resumed until all necessary repairs or adjustments have been completed.

12. In Section 73.146, paragraph (e) is amended by removing the last sentence: "A notation must be made in the station's operating log of the time and duration of any ATS alarm conditions".

§73.146 Automatic transmission system monitoring and alarm points.

* * * * *

(e) Whenever a required alarm condition occurs, the alarm signal must remain continuously activated until the condition causing the alarm is corrected or manual control of the transmitting system is assumed, provided that if a visual alarm is also provided, the aural alarm may be turned off if the visual alarm remains activated.

* * * * *

13. In Section 73.258, subparagraph (e)(1) is removed and marked "Reserved".

§73.258 Indicating instruments.

* * * *

(e) * * *

(1) [Reserved.]

14. In Section 73.267, paragraph (b) is amended by removing the words: "at intervals not exceeding 6 months and" in the last sentence; subparagraph (c)(3) is amended by removing the words: "and a record kept thereof,"; and subparagraph (c)(3)(i) is amended by removing the words: "and also retain with the station records" in the last sentence.

§73.267 Determining operating power.

* * * *

(b) Direct method. The direct method of power determination for an FM station uses the indications of a calibrated transmission line meter (responsive to relative voltage, current or power) located at the RF output terminals. The indications of the calibrated meter are used to observe and maintain the authorized operating power of the station. This meter must be calibrated by the licensee whenever there is any indication that the calibration is inaccurate or whenever any component in the metering circuit is repaired or replaced. The following calibration procedures are to be used:

* * * *

(c) * * *

* * * *

(3) The value of F is to be determined by one of the following procedures listed in order of preference:

(i) Using the most recent measurement data for calibration of the transmission line meter according to the procedures described in paragraph (b) of this Section or the most recent measurements made by the licensee establishing the value of F. In the case of composite transmitters or those in which the final amplifier stages have been modified pursuant to FCC approval, the licensee must furnish the FCC the measurement data used as a basis for determining the value of F.

* * * *

15. In Section 73.275, subparagraph (a)(5) is amended by removing the words: "but in no event less than once a week,"; subparagraph (a)(5)(i) is removed

and marked "Reserved"; and paragraph (c) is amended by removing the sentence: "The subcarrier logging requirements specified in §73.295(f) are not applicable to remote control telemetry operation."

§73.275 Remote control operation.

(a) * * *

* * * * *

(5) Calibration of required indicating instruments at each remote control point must be made against their corresponding instruments at the transmitter site as often as necessary to ensure their accuracy.

(i) [Reserved.]

* * * * *

(c) When a subcarrier is used for telemetry of remote control data from the transmitter to the control point, radiation of the subcarrier is only necessary when remote transmitter readings are being made. However, the subcarrier must be available for telemetry at all times.

16. In Section 73.295, paragraph (c) is removed.

17. In Section 73.297, paragraph (b) is amended by removing the sentence: "However, in any event, the measurement must be made at least once each calendar month with not more than 40 days expiring between successive measurements."

§73.297 FM multichannel sound broadcasting.

* * * * *

(b) Each licensee or permittee engaging in multichannel broadcasting must measure the pilot subcarrier frequency as often as necessary to ensure that it is kept at all times within 2 Hz of the authorized frequency.

18. In Section 73.340, is amended by revising paragraph (c) to read as follows

§73.340 Use of automatic transmission systems (ATS).

* * * * *

(c) Upon receipt of notification from the FCC, the station can commence full ATS operation.

* * * * *

19. In Section 73.344, paragraph (c) is revised to read as follows: "If a

termination of the station transmissions is caused by any failure of the ATS control or alarm function, ATS operation may not be resumed until all necessary repairs or adjustments have been completed."

§73.344 Fail-safe transmitter control for automatic transmission systems.

* * * * *

(c) If a termination of the station transmissions is caused by any failure of the ATS control or alarm function, ATS operation may not be resumed until all necessary repairs or adjustments have been completed.

20. In Section 73.346, paragraph (e) is amended by removing the sentence: "A notation must be made in the station's operating log of the time and duration of any ATS alarm conditions."

§73.346 Automatic transmission system monitoring and alarm points.

* * * * *

(e) Whenever a required alarm condition occurs, the alarm signal must remain continuously activated until the condition causing the alarm is corrected or manual control of the transmitting is assumed, provided that if a visual alarm is also provided, the aural alarm may be turned off if the visual alarm remains activated.

* * * * *

21. Section 73.540 is amended by revising paragraph (c) to read as follows:

§73.540 Use of automatic transmission systems (ATS).

* * * * *

(c) Upon receipt of notification from the FCC, the station can commence full ATS operation.

* * * * *

22. In Section 73.544, paragraph (c) is revised to read as follows: "If a termination of the station transmissions is caused by any failure of the ATS control or alarm functions, ATS operation may not be resumed until all necessary repairs or adjustments have been completed."

§73.544 Fail-safe transmitter control for automatic transmission systems.

* * * * *

(c) If a termination of the station transmissions is caused by any failure of the ATS control or alarm function, ATS operation may not be resumed

until all necessary repairs or adjustments have been completed.

23. In Section 73.546, paragraph (e) is amended by removing the last sentence: "A notation must be made in the station's operating log of the time and duration of any ATS alarm conditions."

§73.546 Automatic transmission system monitoring and alarm points.

* * * * *

(e) Whenever a required alarm condition occurs, the alarm signal must remain continuously activated until the condition causing the alarm is corrected or manual control of the transmitting is assumed, provided that if a visual alarm is also provided, the aural alarm may be turned off if the visual alarm remains activated.

24. In Section 73.558, subparagraph (e)(1) is removed and marked "Reserved".

§73.558 Indicating instruments.

* * * * *

(e) * * *

(1) [Reserved.]

* * * * *

25. In Section 73.575, subparagraph (a)(5) is amended by removing the words: "but in no event less than once a week,"; and subparagraph (a)(5)(i) is removed and marked "Reserved".

§73.575 Remote control operation.

(a) * * *

* * * * *

(5) Calibration of required indicating instruments at each remote control point must be made against their corresponding instruments at the transmitter site as often as necessary to ensure their accuracy, and:

(1) [Reserved.]

* * * * *

26. In Section 73.597, in paragraph (b) the last sentence: "In any event, however, the stereo-pilot subcarrier frequency must be measured in accordance with the following schedule:" is removed; and subparagraphs (b)(1), (b)(2), (b)(2)(i), (b)(2)(ii) and (b)(2)(iii) are removed.

\$73.597 Multichannel sound broadcasting.

* * * * *

(b) Each licensee or permittee engaging in stereophonic broadcasting must measure the pilot carrier frequency as often as necessary to ensure that it is within 2 Hz of the authorized frequency.

27. In Section 73.663, in subparagraph (d)(3) the words: "and a record kept thereof" are removed; and in subparagraph (d)(3)(i) the words: "and also retain with the station records" are removed.

\$73.663 Determining operating power.

* * * * *

(d) * * *

(3) The value of F is to be determined by one of the following procedures listed in order of preference:

(1) Using the most recent measurement data for calibration of the transmission line meter according to the procedures described in paragraph (c) of this Section or the most recent measurements made by the licensee to establish the value of F. In the case of composite transmitters or those in which the final amplifier stages have been modified pursuant to FCC approval, the licensee must furnish the FCC the measurement data for determining the value F.

* * * * *

28. In Section 73.676, subparagraph (a)(2) is amended by removing the words: "which are required by §73.1830 to be entered in the operating log"; the last sentence in paragraph (c) is revised to read: "The loss of any telemetry function which provides information necessary to ascertain proper station operation must result in the actuation of automatic circuitry which, not more than 1 hour from the time of telemetry failure, will terminate operation of the transmitter, and operation by remote control may not resume until all telemetry functions are fully restored."; subparagraph (f)(3) is revised to read as follows: "The required test signals must be observed as often as necessary to ensure proper performance of the transmitter and associated equipment."; subparagraph (f)(4) is removed and marked "Reserved"; in paragraph (g) the words: "and, in any event, at successive times no longer than 1 week apart" are removed; and paragraph (h) is removed.

\$73.676 Remote control operation.

(a) * * *

* * * * *

(2) Suitable instruments for indicating the operating parameters.

The indicating instruments must show the actual values of such parameters, or decimal multiples of those parameters and must be calibrated to provide an indication within 2% of the corresponding instrument at the transmitter site.

* * * * *

(c) The control circuits from the control point to the transmitter and the return telemetry circuit must be so designed and installed that open circuits, short circuits, accidental grounding or other line faults, where lines are used, or equipment failures, casual signals or random noise impulses, if other means are used, will not activate the transmitter. Any fault or failure which results in loss of control must cause the transmitter to cease operation. The loss of any telemetry function which provides information necessary to ascertain proper station operation must result in the actuation of automatic circuitry which, not more than 1 hour from the time of telemetry failure, will terminate operation of the transmitter, and operation by remote control may not resume until all telemetry functions are fully restored.

* * * * *

(f) * * *

* * * * *

(3) The required test signals must be observed as often as necessary to ensure proper performance of the transmitter and associated equipment.

(4) [Reserved.]

* * * * *

(g) The remote control and monitoring equipment must be calibrated and tested, and the television broadcast transmitter must be inspected as often as necessary to ensure operation with this Subpart E.

29. In Section 73.688, subparagraph (e)(1) is removed and marked "Reserved".

§73.688 Indicating instruments.

* * * * *

(e) * * *

(1) [Reserved.]

* * * * *

30. In Section 73.781, the introductory paragraph is revised to read: "The licensee or permittee of each international broadcast station must maintain the station log in the following manner:"; and paragraphs (b), (c) and (d) are

removed.

\$73.781 Logs.

The licensee or permittee of each international broadcast station must maintain the station log in the following manner:

(a) * * *

* * * * *

(3) * * *

31. Section 73.786 is removed.

32. In Section 73.932, subparagraph (d)(1) is revised to read as follows: "Appropriate entries must be made in the station log, indicating reasons why Weekly Test Transmissions were not received or conducted and;"; and subparagraph (d)(2) is revised to read as follows: "Appropriate entries must be made in the station log showing the date and the time the equipment was removed and restored to service."

\$73.932 Radio monitoring and Attention Signal transmission requirements.

* * * * *

(d) * * *

(1) Appropriate entries must be made in the station log, indicating reasons why Weekly Test Transmissions were not received or conducted and;

(2) Appropriate entries must be made in the station log showing the date and the time the equipment was removed and restored to service.

* * * * *

33. In Section 73.961, the introductory paragraph is revised to read as follows: "Tests of the EBS procedures will be made at regular intervals as indicated below. Appropriate entries must be made consistently in the station log concerning EBS tests received and transmitted by broadcast stations."

\$73.961 Tests of the Emergency Broadcast System procedures.

Tests of the EBS procedures will be made at regular intervals as indicated below. Appropriate entries must be made consistently in the station log concerning EBS tests received and transmitted by broadcast stations.

* * * * *

34. In Section 73.962, subparagraph (e)(4) is revised to read as follows: "Enter

the time of receipt of the Closed Circuit Test consistently in your station log."

§73.962 Closed Circuit Tests of approved National Level interconnecting systems and facilities of the Emergency Broadcast System.

* * * * *

(e) * * *

* * * * *

(4) Enter the time of receipt of the Closed Circuit Test consistently in your station log.

* * * * *

35. In Section 73.1215, paragraph (e) is amended by removing the words "and logging of" in the first sentence; and by removing the words: "or on the face of an automatically printed log at least once each calendar day" in the last sentence.

§73.1215 Specifications for indicating instruments.

* * * * *

(e) Digital meters, printers, or other numerical readout devices may be used in addition to or in lieu of indicating instruments meeting the specifications of paragraphs (a), (b), (c) and (d) of this Section. If a single digital device is used at the transmitter for reading operating parameters, either (1) Indicating instruments meeting the above-mentioned specifications must be installed in the transmitter and antenna circuit; or (2) a spare digital device must be maintained at the transmitter with provision for its rapid substitution for the main device should that device malfunction. The readout of the device must include at least three digits and must indicate the value or a decimal multiple of the value of the parameter being read to an accuracy of at least 2%. The multiplier to be applied to the reading of each parameter must be indicated at the operating position of a switch used to select the parameter for display.

* * * * *

36. In Section 73.1225 paragraph (d) is revised to read as follows: "The station log must be made available for inspection upon request by a representative of the FCC." (all remaining subparagraphs are removed).

§73.1225 Station inspections by FCC.

* * * * *

(d) The station log and special technical records must be made available for inspection upon request by a representative of the FCC.

37. In Section 73.1515, subparagraph (c)(4) is removed and marked "Reserved".

\$73.1515 Special field test authorization.

*	*	*	*	*
	.			
(c)	*	*	*	
*	*	*	*	*
(4)				
*	*	*	*	*

38. In Section 73.1550, paragraph (c) is amended by removing the words: "but in no event less than once each week"; paragraph (c)(1) is removed and marked "Reserved"; subparagraph (d)(1) is amended by removing the words: "and entered in the operating log at the same intervals"; subparagraph (d)(2) is amended by removing the words: "with indications entered in the operating log once each day" from the first sentence, and by removing the last sentence: "If the malfunction affects the extended indications of the directional antenna monitor, the pertinent entries required in the operating log must be obtained at the specified intervals at the monitor location."; subparagraph (d)(3) is amended by removing the words: "and entered in the operating log at regular intervals"; subparagraph (d)(4) is amended by removing the words: "and entered in the operating log at the same intervals" in the first sentence; and paragraph (e) is amended by removing the first two sentences: "When a malfunction in the extension metering or monitoring equipment is detected, an appropriate entry must be made in the station's maintenance log showing the date of the observance and identifying the indicating device(s) affected. A dated entry must also be made when repair or replacement is completed."

\$73.1550 Extension meters.

*	*	*	*	*
(c)				

The extension meters required, pursuant to paragraph (b) of this Section, must be calibrated against their corresponding regular meters as often as necessary to ensure their accuracy, and,

(1) [Reserved.]

*	*	*	*	*
(d)	*	*	*	

(1) All stations. If the malfunction affects the meters for indicating the DC input power to the last radio stage of the transmitter power amplifier, the indications must be read at the transmitter.

(2) AM stations. In addition to (1) above, if the malfunction

affects the extension indications of antenna or common point ammeter, the operating power may be determined by the indirect method using the procedures described in §73.51(e) for a period not to exceed 60 days. Alternatively, the operating power may be determined by the direct method on a continued basis by reading the regular antenna or common point ammeter for each mode of operation until the defective extension metering is repaired.

(3) FM stations. In addition to (1) above, if the malfunction affects the transmission line meter, the indications must be read at the transmitter.

(4) TV stations. In addition to (1) above, if the malfunction affects the transmission line meter(s), indications must be read at the transmitter. If the malfunction affects the indications of the visual monitoring equipment, the licensee must, pending repair or replacement, provide other suitable means for monitoring visual modulation at the extension meter location.

(e) If a malfunctioning component cannot be repaired or replaced within 60 days from the date faulty operation is detected, the Engineer-in-Charge of the radio district in which the station is located must be notified and request made for such additional time as is needed to complete the necessary repairs or replacement.

39. In Section 73.1580, paragraph (a) is revised to read as indicated; subparagraphs (a)(1), (2) and (3) are removed; and paragraph (b) is removed.

§73.1580 Transmission system inspections.

(a) Each AM, FM, and TV station licensee or permittee must conduct a complete inspection of the transmitting system and all required monitors as often as necessary to ensure proper station operation.

40. In Section 73.1665, paragraph (c) is amended by removing the words: "and a certification must be entered in the station maintenance log by the station's consulting engineer, technical director or chief operator so that the station with the new transmitter(s), as installed, complies with the technical provisions of this Part."

§73.1665 Main transmitters.

* * * * *

(c) A licensee may, without further authority or notification to the FCC, replace an existing main transmitter or install additional main transmitters for use with the authorized antenna if the replacement or additional transmitter(s) is type accepted as shown in the FCC "radio equipment list". Within 10 days after commencement of regular use of the replacement or additional transmitter(s), equipment performance measurements, as prescribed for the type of station are to be completed.

41. In Section 73.1800, paragraphs (a), (b) (f), (g) and (h) are revised to read as follows:

§73.1800 General requirements related to the station log.

(a) The licensee of each station must maintain a station log as required by §§73.1810 and 73.1820. This log will be kept by the station employee or employees competent to do so, having actual knowledge of the facts required. All entries, whether required or not by the provisions of this Part, must accurately reflect the station operation. When the employee making a log entry signs the log, that person attests to the fact that the log, with any corrections or additions made before it was signed, is an accurate representation of what transpired.

(b) The station log must be kept in an orderly and legible manner, in suitable form and in such detail that the data required for the particular class of station concerned are readily available. Key letters or abbreviations may be used if the proper meaning or explanation is contained elsewhere in the log. Each sheet must be numbered and dated. Time entries must be made in local time and must be indicated as advanced (e.g., EDT) or non-advanced time (e.g., EST).

(c) * * *

* * * * *

(f) Entries must be made in the station log as required by §§73.1810 and 73.1820. Additional information, such as that needed for administrative or operational purposes, may also be included in the log and is not subject to the restrictions and limitations concerning corrections or changes made in the log. Such additional information may be physically removed at the option of the licensee, without altering required information in any way, before making the log a part of an application or available for public inspection.

(g) Application forms for licenses and other authorizations require that certain operating and program data be supplied. These applications should be kept in mind in connection with formulating the contents of the station log, since it may contain information previously retained in operating and maintenance logs pursuant to rules no longer in effect.

(h) Application forms for licenses and other authorizations require that certain operating data be supplied. These forms should be kept in mind in connection with the maintenance of the station log.

42. In Section 73.1810, subparagraph (b)(5) is revised to read as follows:

§ 73.1810 Program logs.

* * * * *

(b) * * *

* * * * *

(5) For Emergency Broadcast System Operations. The results of tests of the EBS procedures pursuant to the requirements of Subpart G of this Part and the appropriate station EBS checklist must be entered in the station log (in the case of television stations, the station log may be the program log).

43. Section 73.1820 is re-entitled "Station log"; paragraphs (a) and (c) are revised to read as follows;

§73.1820 Station log.

(a) Entries must be made in the station log either manually by a properly licensed operator in actual charge of the transmitting apparatus, or by automatic devices meeting the requirements of paragraph (b) of this Section. Indications of operating parameters must be logged prior to any adjustment of the equipment. Where adjustments are made to restore parameters to their proper operating values, the corrected indications must be logged and accompanied, if any parameter deviation was beyond a prescribed tolerance, by a notation describing the nature of the corrective action. Indications of all parameters whose values are affected by modulation of the carrier must be read without modulation. The actual time of observation must be included in each log entry. The following information must be entered.

(1) All stations:

(i) Entries required by §17.49 of this Chapter concerning any observed or otherwise known extinguishment or improper functioning of a tower light:

(A) The nature of such extinguishment or improper functioning.

(B) The date and time the extinguishment or improper operation was observed or otherwise noted.

(C) The date, time and nature of adjustments, repairs or replacements made.

(ii) Any entries not specifically required in this Section, but required by the instrument of authorization or elsewhere in this part.

(iii) An entry of each test of the Emergency Broadcast System procedures pursuant to the requirements of Subpart G of this Part and the appropriate EBS checklist, unless (in the case of TV stations) such entries are consistently made in the station program log.

(2) Directional AM stations without an FCC-approved antenna sampling system (See §73.68):

(i) An entry at the beginning of operations in each mode of operation, and thereafter at intervals not exceeding 3 hours, of the following (actual readings observed prior to making any adjustments to the equipment and an indication of any corrections to restore parameters to normal operating

values):

(A) Common point current.

(B) When the operating power is determined by the indirect method, the efficiency factor F and either the product of the final amplifier input voltage and current or the calculated antenna input power. See §73.51(e).

(C) Antenna monitor phase or phase deviation indications.

(D) Antenna monitor sample currents, current ratios, or ratio deviation indications.

(ii) Entries required by §73.61 performed in accordance with the schedule specified therein.

(iii) Entries of the results of calibration of automatic logging devices (see paragraph (b) of this Section), extension meters (see §73.1550) or indicating instruments (see §73.67) whenever performed.

(b) * * *

(c) In preparing the station log, original data may be recorded in rough form and later transcribed into the log.

44. Section 73.1830 is removed.

45. In Part 73 a new section is added to read as follows:

73.1835 Special technical records.

The FCC may require a broadcast station licensee to keep operating and maintenance records as necessary to resolve conditions of actual or potential interference, rule violations, or deficient technical operation.

46. In Section 73.1870, subparagraphs (c)(3) and (c)(4) are revised to read as follows:

§73.1870 Chief operators.

* * * * *

(c) * * *

(3) Review of the station records at least once each week to determine if required entries are being made correctly. Additionally, verification must be made that the station has been operated as required by the rules or the station authorization. Upon completion of the review, the chief operator or his designee must initiate any corrective action which may be necessary and advise the station licensee of any condition which is a

repetitive problem.

(4) Any entries which may be required in the station records. (See §73.1820.)

47. In Part 74 a new section is added to read as follows:

74.19 Special technical records.

The FCC may require a broadcast auxiliary station licensee to keep operating and maintenance records necessary to resolve conditions of actual or potential interference, rule violations, or deficient technical operation.

48. Section 74.181 is re-entitled "Station records"; paragraph (a) is revised as follows; paragraphs (b) and (c) are removed and present paragraph (d) is renumbered as new paragraph (b):

§74.181 Station records.

(a) The licensee of each experimental television broadcast station must maintain adequate records of the operation, including:

(1) Program transmitted.

(2) In case of relay or pickup station, an entry giving points of program origination and receiver location.

(3) Entries concerning any specific information requested by the FCC deriving from the purpose of the experimental grant.

(4) Such other information deemed useful by the licensee for evaluating the experimental operation.

(b) Station records must be retained for a period of 2 years.

49. Section 74.281 is re-entitled "Station records"; paragraph (a) is revised as follows; paragraphs (b) and (c) are removed and present paragraph (d) is renumbered as new paragraph (b):

§74.281 Station records.

(a) The licensee of each experimental facsimile broadcast station must maintain adequate records of the operation, including:

(1) Program transmitted.

(2) Entries concerning any specific information requested by the FCC deriving from the purpose of the experimental grant.

(3) Such other information deemed useful by the licensee for evaluating the experimental operation.

(b) Station records must be retained for a period of 2 years.

50. Section 74.381 is re-entitled "Station records"; paragraph (a) is revised as follows; paragraphs (b) and (c) are removed and present paragraph (d) is renumbered as new paragraph (b):

\$74.381 Station records.

(a) The licensee of each experimental television broadcast station must maintain adequate records of the operation, including:

- (1) Program transmitted.
- (2) In case of relay or remote pickup station, an entry giving points of program origination and receiver location must be included.
- (3) Entries concerning any specific information requested by the FCC deriving from the purpose of the experimental grant.
- (4) Such other information deemed useful by the licensee for evaluation of the experimental operation.

(b) Station records must be retained for a period of 2 years.

51. In Section 74.465 paragraph (a) is revised to read as follows:

\$74.465 Frequency monitors and measurements.

(a) The licensee of a broadcast remote pickup station or system must provide the necessary means to insure that all operating frequencies are maintained within the allowed tolerances.

* * * * *

52. Section 74.562 is amended by removing the sentence "The date and time of each frequency check, the frequency as measured, and a description or identification of the method employed must be entered in the station log."

\$74.562 Frequency monitors and measurements.

The licensee of each aural broadcast STL and intercity relay station must provide the necessary means for determining that the frequency of the station is within the allowed tolerance. Sufficient observations must be made to ensure that the assigned carrier frequency is maintained within the prescribed tolerance.

53. Part 74 is amended by removing Section 74.581.

54. Section 74.662 is amended by removing the sentence "The date and time of each frequency check, the frequency as measured and a description or identification of the method employed must be entered in the station log."

§74.662 Frequency monitors and measurements.

The licensee of a television broadcast auxiliary station must provide means for measuring the operating frequency in order to ensure that the emissions are confined to the authorized channel.

55. Part 74 is amended by removing Sections 74.681, 74.781, 74.881, 74.981, and 74.1281.

56. The following listings are removed in their entirety from the Alphabetical Index to Part 73 of the Commission's Rules:

Logs, Maintenance.....	73.1830
Maintenance logs.....	73.1830
Logs, Operating.....	73.1820
Operating logs.....	73.1820

57. The following listings are added in sequence to the Alphabetical Index to Part 73 of the Commission's Rules:

Station log.....	73.1820
Log, Station.....	73.1820
Special technical records.....	73.1835
Technical records, Special.....	73.1835
Records, Special technical.....	73.1835